

FRIDAY FLYER – JULY 13, 2012

Something to share: An interesting research project or kudos for a student, teacher or mentor?
Contact Kris Whelan.

CENTER SPOTLIGHT: University of Notre Dame - <http://nd.edu/~quarknet/>

Contact Dan Karmgard to learn how to successfully integrate QuarkNet with an RET program.

Summer research is the cornerstone of the Notre Dame QuarkNet program. In Summer 2011, participants worked on nine different projects, including investigations into new scintillators, presentation of particle physics in the Notre Dame Digital Visual Theater (DVT), investigations using the CMS e-Lab, and cosmic ray studies. The summer program extends for eight weeks with support from a Research Experience for Teachers (RET) grant and includes 12 to 15 high school research students. These students attend daily “brown bag” lectures; this almost always turns into a game of “stump the physicist,” something the students seem to enjoy quite a bit—regardless of the nominal topic.

At the end of the research program, Notre Dame holds the teacher “QuarkNet Week,” including discussions with physicists about current topics. Last year there were discussions with theorists on the Higgs mechanism and with experimentalists on techniques for finding new particles and understanding limit setting from experimental results. Most importantly, they have extensive discussions about ways to work the topics into their classrooms.

The Notre Dame center is a large, active group. About a dozen teachers meet weekly throughout the academic year. Most often these meetings include both an experimentalist and theorist, which makes for lively discussions from different points of view. One or more of the teachers leads some part of every QuarkNet week based on their summer research. The Center regularly participates as a group in various local science fairs and science day demonstrations.

NEWS FROM QUARKNET CENTRAL

News from the Cosmic Ray e-Lab

Bob Peterson and e-Lab Fellows have facilitated numerous cosmic ray workshops this summer with more to come. Staff has also been invited to lead workshops in China and Korea. Would your center benefit from a fellows/staff-facilitated workshop next year? Contact Bob or your staff teacher for more information. Get on the calendar for summer 2013. The summer gets booked early, so start making plans now!

PHYSICS EXPERIMENT ROUNDUP:

Dark matter: No model, just guesses

<http://www.quantumdiaries.org/2012/07/11/dark-matter-no-model-just-guesses>

Higgs was not the only topic of discussion at ICHEP2012 (International Conference on High Energy Physics) in Melbourne. The focus changed to discussions about dark matter. Find out if physicists are still in the dark about it in the Quantum Diaries.

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